PARAMETERS FOR SUCCESSFUL MANAGEMENT OF CROSS CULTURAL VIRTUAL TEAMS

Ву

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ABSTRACT

Virtual teams are a common phenomenon in organizations today. Universities are no exception to this trend and, in response, are offering class rooms without boundaries by introducing online programs which allow individuals from all walks of life and diverse geographical locations to come together. Cross-cultural virtual teams, collaborating with globally dispersed team members, are now common in online educational programs. This study analyses empirical observations from 18 online graduate classes with a total of 450 students dispersed all over the globe, and their cross-cultural collaboration in virtual teams. Six parameters, which contribute to the successful management of cross-cultural virtual teams are identified.

Keywords: Cross-cultural teams, virtual teams, management of cross-cultural teams, management of virtual teams, e-learning, online learning, distance learning, collaboration, peer learning

INTRODUCTION

Considering the geographic boundaryless world in which we exist, it has become common to find teams dispersed all over the globe. In response to this trend, universities are now offering classrooms without boundaries by introducing online programs which allow individuals from all walks of life and diverse geographies to come together in pursuit of a common goal: a degree or professional certification to promote their education. This has led to an increase of cross-cultural virtual teams in these "classrooms". Collaborating with globally dispersed team members is widespread in online educational programs with a large international student body, leading to the question of how to ensure effective and efficient work in such teams.

21st century organizations see more and more virtual teams (Chelte, F.A. & Spotts, H. E., 2005). As mentioned by Martins, Gilson & Maynard (2004), the foundation of most definitions of virtual teams is that they rely on technology-based communication to cross several different types of boundaries (Bell & Kozlowski, 2002, Lipnack & Stamps 1999, Lurey & Rasinghani 2001, Langevin 2004, Henry & Hartzler 1998) such as geographical (Maznesvksi & Chudoba 2000, Odenwald 1996), time (Kayworth & Leidner 2000, Bell & Kozlowski 2002), and organizations

(Maznevski & Chudoba 2000, Townsend 1998, Zigurs 2003). Members of a virtual team can be located all over the world as opposed to being limited to one location. One such example would be that virtual teams are defined as geographically dispersed individuals who are placed into geographically dispersed groups and communicate with each other by the use of information technology (Lipnack & Stamps 1999).

These virtual teams are always connected and are able to continue their team project activities both synchronously as well as asynchronously according to their time zones. They have access to an array of technological means in order to ensure that effective and efficient communication is possible. These means can include email (and embedded calendar and scheduling functions), discussion board postings, notepads to which all members have access, announcements, chats/instant messaging, Voice over IP (VoIP) with and without a video component, as well as the telephone. Media richness has a positive impact on team effectiveness (Daft & Lengel 1984), communication (Carlson & Zmud 1999, Hinds & Kiesler 1995, May & Carter 2001), team commitment (Workman, Kahnweiler & Bommer 2003), trust (Burgoon, Bonito, Ramires, Dunbar, Kam & Fischer 2002) and relationships among team

members (Pauleen & Yoong 2001). As communication in the virtual space makes it possible to have records of all contributions, from emails to instant messaging protocols, team activities can be both documented for reference and proactively monitored.

It may be damaging the success of a virtual team if team members are not able to master the necessary communication technologies; this issue will not be explored in the context of this study as students in the surveyed classes actively chose online-only classes and are therefore unlikely to be affected by barriers of new technologies.

Although it can be argued that cultural and language differences in a virtual team setting may create more misunderstandings or wrong assumptions than face-to-face settings (Ross, 2006), the parameters established in this study surface as important tools to overcome such obstacles. It is important for virtual teams to experience the creation and maintenance of relationship and community building, as well as the sharing of a common goal. The parameters identified in this study will also address this, as they embrace the element of mutual awareness of shared goals as one of the features of effective collaborative learning (Haekkinen, 2004).

The Context of the Study

U21Global is a joint venture between a consortium of 21 universities (U21) and Manipal Education, which delivers a number of graduate programs. The U21 member universities participating in U21G are McGill University, University of British Columbia, University of Virginia, Tecnológico De Monterrey, University of Birmingham, University of Edinburgh, University of Glasgow, University of Nottingham, University College Dublin, Lund University, University of Freiburg, University of Melbourne, University of New South Wales, University of Queensland, University of Auckland, National University of Singapore, University of Hong Kong, Shanghai Jiao Tong University, Fudan University, Korea University, Delhi University and Waseda University.

Unlike traditional universities, the representation of international learner presence at U21G is nearly 100%,

making cross-cultural approaches to virtual teams an important pedagogical issue. With all courses being conducted entirely online and with more than 3,000 students enrolled from more than 60 countries ranging from China, India, the United Arab Emirates, New Zealand, Australia, Germany, England, North and South America to name a few, the need to cater for different cultures in each class is evident. This is ensured by employing professors from all over the globe to develop the online course content in a cross-culturally sympathetic manner (as opposed to a mono-cultural approach) and also by ensuring that professors from all over the globe facilitate the classes. On average, students in this Executive MBA programme are 35 years of age with 10 years of work experience.

In contrast to regular brick-and-mortar classroom settings where, for example, the monitoring of team performance is limited, the e-learning environment lends itself to approaches which overcome such limitations. As all communication can be recorded (as explained below), it allows the professor to monitor team performance, thus enabling him/her to address team issues more individually and more easily than the case in a face-to-face classroom setting.

Method

The data in this empirical analysis is derived from observations by the authors of general and team discussion board postings, course content, and peer assessments.

Analyzing content allowed the distillation of a large amount of raw data into distinct categories or themes. Initial themes ranged from questions, feedback, information, communication, channels of communication, guidance by course content, guidance by professor, guidance by service staff, for example. The categorical-content method, as explained by Lieblich, Tuval-Mashiach & Zilber (1998), was applied, as it allowed for the identification of distinct categories or themes that become visible when reviewing and reading data. In order to reduce the number of themes the authors specifically applied a priori coding while establishing

categories during this review of 18 Organizational Behavior classes (MBA) prior to the analysis. In addition, for the purpose of this study, a focused review and analysis of virtual teams was conducted. On average, classes had 5.7 teams consisting of 4 to 5 members each with the team composition remaining unchanged for both team projects during the duration of the subject. Coding sampling units were defined syntactically by using words, sentences, or paragraphs of the data/texts (course content, team discussion postings, peer assessments).

Results and Analysis

This study researched indicators for successful management of virtual teams. After reviewing 18 classes, with a total of 450 students and 103 virtual teams within these classes (with an average of 4 - 5 members in each team), the authors observed a total of 104 discussion board posts per team. The number of postings was derived from two team projects that students have to master in this subject. The data is shown in Table 1.

While the calculations throughout represent average

| Class | # Students In class | # DB posts 30 days after class start | # E- teams | # Team Members (Average) | # Team DB posts per team (average) | # Emails in class during entire course |
|-------|---------------------------|---|---------------|--------------------------------|---|--|
| 1 | 25 | 333 | 4 | 5.5 | 61 | 360 |
| 2 | 18 | 123 | 4 | 4.5 | 39 | 766 |
| 3 | 20 | 1121 | 8 | 2.5 | 17 | 635 |
| 4 | 27 | 238 | 8 | 4.0 | 69 | 733 |
| 5 | 23 | 805 | 6 | 3.7 | 33 | 796 |
| 6 | 31 | 921 | 7 | 4.0 | 86 | 1053 |
| 7 | 37 | 1515 | 7 | 5.0 | 212 | 1380 |
| 8 | 23 | 510 | 4 | 5.5 | 134 | 716 |
| 9 | 20 | 392 | 5 | 4.0 | 170 | 419 |
| 10 | 21 | 1733 | 5 | 4.0 | 154 | 529 |
| 11 | 28 | 1798 | 6 | 4.0 | 137 | 693 |
| 12 | 26 | 1385 | 5 | 4.0 | 152 | 604 |
| 13 | 27 | 1022 | 5 | 4.0 | 127 | 507 |
| 14 | 20 | 478 | 5 | 4.0 | 61 | 525 |
| 15 | 28 | 209 | 7 | 4.0 | 84 | 679 |
| 16 | 26 | 1279 | 6 | 4.0 | 49 | 552 |
| 17 | 27 | 603 | 6 | 4.0 | 65 | 551 |
| 18 | 23 | 525 | 5 | 4.0 | 222 | 738 |
| Total | 450 | 14990 | 103 | 4 | 1870 | 12236 |

Table 1. Data derived from the classes observed

values, the authors do want to note that some team members and teams were more active than others during their team discussion contributions for either team case project.

When observing general and team discussion board postings, the authors looked for facilitator and student behavior, the comments students made, how they communicated with each other, and how they navigated around the learning platform.

Peer Assessments gave data on the quality input of each student assigned to a team when conducting a team case analysis. The peer assessment tool is used at the end of team case assignments at which point the team members rate each other on assessment criteria such as each team member's overall quality of input, overall contribution of efficient functioning of the team, and coordination and writing of the team case.

Parameters for success management of cross-cultural virtual teams were developed. These parameters allow for the continuous improvement of a collaborative and communal virtual team culture to take place. This development not only allows for successful management of virtual teams in a cross-cultural environment, but also for successful mutually constructive individual learning to arise.

The review showed the following six parameters for successful management of cross-cultural virtual teams:

1. Structure

Course design and class set-up will help virtual teams in their engagement with each other. There is a continuing value to this kind of positive, structured approach as students need to work in teams while pursuing the rest of the course, and to involve in activities based on individual as opposed to team work. Students need to review the online course content as well as complete additional readings and contribute to discussion questions at the same time when they are engaged in a team project (during which they deal with groups, team norming, and team conflict resolution). This learning can be applied by individual team members to aid the successful management of these cross-cultural virtual teams.

Another grounding process (Haekkinen 2004) towards virtual team success can be found in the document "Tips for Team collaboration", which forms part of the course material and is available for each individual team member to print, reflect upon and apply. This guiding document gives students general information about how teams are formed the differences in communication styles, the differences in time management styles, as well as perception of authority. Moreover, it recommends team members to introduce each other, to select a team leader who will help keep everyone on task, to decide the deadlines, and divide up the work. Basically, the "Tips for Team collaboration" is an introduction on forming, norming, and storming of a team. Further, team discussion board areas are set up for each team, which allow the teams and their respective members to communicate and collaborate with each other throughout the duration of the project.

In addition, the "open virtual door" culture that sets conditions for student support and welfare by the Section Area Coordinator (SAC) overseeing the course, along with the professor facilitating the course, is another dynamic structural element contributing to successful management of virtual teams. The professor's feedback, encouragement, and guidance assist in achieving an engaged and active level of interaction as opposed to passive awareness amongst students.

This is also tied to the element of trust, as trust begins with the SAC and professor facilitating the online class (Ross 2006). If this relationship between the SAC and professor is constructive, effective, based on mutual respect and trust, and taken into the virtual classroom, it establishes an environment of responsiveness and commitment for the entire class ("sets the tone").

The structural set up of "tips on how to collaborate successfully" and the discussion area arranged for each team, along with the professor's guidance, help to coordinate the team project, help to negotiate common goals, and assist all team members to become mutually aware of this joint task.

2. Harmonious environment/atmosphere

As every class can be seen as a team, and teams formed within these classes seen as sub-teams, they can be characterized as having fluid membership (Alge, Wiethoff & Klein 2003; Kirkman, Rosen, Tesluk & Gibson 2004). It should be noted, however, that the authors have observed some very close ties between students, lasting across classes and over long period of time.

Given the cross-cultural nature of the programs offered at U21G, establishing a sense of community, leading to a conducive and harmonious discussion climate across all cultures involved, is of utmost importance in such a setting. An example of creating a harmonious environment is communication between the students. While some research suggests that virtual teams do not enjoy any non-verbal cues and thus are at a disadvantage especially when it comes to cross-cultural teams, recent research has shown that this does not necessarily have to be the case. Sixl-Daniell & Williams (2005) found that the use of emoticons can overcome the lack of non-verbal communication and the absence of face-to-face meetings in a virtual setting relatively well.

Socio-emotional aspects, known as the psychological interactive collaborative learning element (Kirschner & Van Bruggen 2004), are also addressed through the process by which individual team members have an opportunity to get to know each other during the week prior to the team case assignment. This early foundation of teams assists in the group-forming and norming stage of the virtual team experience and the creation of a harmonious team environment. Moreover, virtual team members are able to access a variety of communication channels leading to possible effective participation. This multi-channel flexible access model helps students to overcome many of the psychological or practical barriers that their face-to-face contemporaries may experience (Majchrzak, Malhotra, Stamps & Lipnack 2004). parameter is also connected to the parameter of structure, as the sense of community is set from the beginning of the course by the social presence of the professor.

The authors observed that by the time the teams are formed (week 5 from course commencement date), an average of 833 discussion board contributions are posted in each class, which translates into an average of 33 discussion board posts per student.

The discussion board and email exchanges at the beginning of a course are crucial for setting the stage for a collaborative community climate in any online course. Response times and the tone of communications in the formative period set the stage for future communication style in class, with non-responsive students sending clear signals to their more enthusiastic counterparts, and vice versa. The study showed that the discussion climate in the classes surveyed was universally constructive and respectful in tone, with only a handful of incidents pointing to potential conflicts, which were resolved swiftly through the intervention of the professor. No case of flaming was observed in any of the classes surveyed.

3. Trust and Mutual Reliance

Trust between team members is a fundamental element of successful teams in both face-to-face and virtual settings. Due to a rolling intake of students at U21G, no cohorts of students in the traditional sense form classes together; students may or may not know their classmates. Students are free to choose their core and elective subjects and its' order (with certain exceptions), leading to different student groups for each class. This requires the swift establishment of team trust and the swift creation of a feeling of "team membership" in the absence of established cohorts.

The parameter of mutual trust and reliance is closely tied to the parameter of harmonious environment in that the successful working style of virtual teams depends on the use of a range of communication tools and behaviors (Jarvenpaa & Leidner, 1999) to assist with the rapid building of trusting relationships (Dani, Burns, Backhouse & Kochhar 2006). As stated by Jarvenpaa & Leidner (1999), teams communicate in a task (which maintains trust) and social (which builds trust) oriented manner with each other.

The virtual team "contract" can be a temporary one that

only lasts for the duration of a project or, in the case of students, for the course to achieve specific team objectives. Building swift interpersonal trust between virtual team members is a very important element (Dani, Burns, Backhouse & Kochhar 2006) and will be referred to later.

The authors observed that building and developing of trust and mutual reliance starts with the introductory posts that take place during the first five weeks of class, prior to team forming, when students are able to observe each other's responses and behaviors. As mentioned above, establishing an environment of responsiveness and commitment by the professor is crucial for the learning experience of the entire class. As the course progresses and students continue to engage in their general and team discussions, the relationship of trust is maintained and, ideally, strengthened.

An important measure chosen to promote a higher sense of trust and the swift establishment of mutual reliance is the mandatory use of a peer assessment tool at U21G, which is integrated in the Learning Management System. The required use of this tool for each team assignment demonstrated that, even though in the very first assignment during the students' first online class, freeriders may be given the benefit of the doubt by classmates in some rare cases, this may not be the case in subsequent team assignments. The peer assessment tool applied makes it necessary for each individual team member to submit peer assessments along with certain criteria (collection of data, data analysis, co-ordination and writing of submission, overall quality of input (creative ideas, insights) and overall contribution to the efficient functioning of the team) and to assign a numerical value to each of these criteria (ranging from -1 to 5). This data is calculated into a factor which reflects an adjustment of the team mark by the peer assessment. Basically, the ratings of the peer assessment can affect an individual team member's final grade on the team case. While the written grade for the team could be, for example, 75, the individual team member's grade could end up as a grade of 65, if this team member received a poor peer assessment.

This study also showed that, in order to create trust and a good working climate and personal relations in a team, students ideally replied to emails and discussion posts swiftly, shared information, logged on to the class daily, answered queries quickly and all were both present and active, as soon as the team had been established. This view is shared by Jarvenpaa, Knoll & Leidner (1998) and Jarvenpaa & Leidner (1999).

The authors found examples of students expressing their wish to meet in person for non-university purposes and to create groups of like-minded students to meet in regular intervals.

4. Collaboration

As much as students learn through online courseware, textbooks, cases, articles and other materials, it is prudent to note that, especially in classes made up of students with more than three years work experience in a managerial position (one of the requirements for admission to the MBA program at U21GI), the role of peer learning cannot be overestimated. The authors have observed many occasions where peer learning was predominant, even leading students to ask questions on issues related to their own work openly in class and soliciting answers and suggestions from classmates (which in itself shows the swiftly established trust in such a class).

Further, with the creation of a harmonious team environment, a community feeling is established which serves as an incentive for students to visit the virtual classroom more frequently and to become more active in group interaction (Sixl-Daniell & Gullett 2006). This, in turn, will allow students to apply continuously their diverse approaches, to build on each others' knowledge, and to construct new knowledge, while strengthening the parameters of trust and a harmonious community.

The data showed that, on average, there were 104 discussion board posts in each of the team discussion areas. In addition, email traffic throughout the duration of all 18 courses studied amounted to an average of 680 emails per class, indicating a higher level of student communication and collaboration. The authors also

observed cases where certain students communicated with each other towards the end of a class to find out which subject they would be signing up for next, with the intent to work as a team again.

5. Synchronized effort

Virtual teams can work both in a synchronous as well as asynchronous manner, both across time zones and within the same or similar time zones. Both aspects have their advantages and disadvantages. Asynchronous teams can exploit the issue of different time zones to their advantage by ensuring that the work gets done in time by all members, thus making it possible for some team members to work on a project even while other team members are literally asleep.

No time is lost and a virtual team can gain a distinctive advantage over a team operating solely in a synchronous manner. In addition, asynchronous teams have the added advantage of reflective learning. The virtual environment allows team members to take their time to respond and to think about replies more carefully than would be the case during a face-to-face or phone conversation, when students are expected to react immediately and sequentially (Sixl-Daniell & Gullett 2006). Finally, the online environment, with its potential for asynchronous interactions and written communication. gives all team members an equally loud voice. In other words, considering that teams are made up of different individuals with different personalities, some of which in face-to-face settings would be more vocal than others, the online environment allows each team member to reflect on team contributions made, to give feedback to the contributions made, and to add further knowledge without the pressure that some shy or introvert students may experience in such traditional settings.

6. Shared Responsibility

Both students and professors have important roles to play within virtual teams. Professors need to set standards and motivate students by leading through example (logging on daily, being present and active, answering queries swiftly, etc.). Students also need to share responsibility within the team, by setting their own rules and establishing

team structures (for example, with one or more leader(s) or as a completely self-managing team). Ideally, this leads to a balance of effort and input into the team by all members and to a higher level of output than would have otherwise been the case.

The authors observed that the majority of teams were self-managing, and that this tendency seemed to stem from the maturity of the students taking the classes (as mentioned above, their average age being 35, with an average of 10 years of managerial experience, and the gender distribution being 79% male and 21% female), and their determination to study for a postgraduate degree while working.

Further, by establishing their own ground rules to synchronize effort and maximize output, teams create the awareness that they are collaboratively constructing knowledge in order to achieve a mutually beneficial goal.

Conclusion

Providing a grounded structure based on sound course design and class set-up helps virtual teams engage with each other successfully. A trustworthy relational open culture created by the SAC is another key element interrelated to structure due to the continuous guidance and support given by the online facilitator to students, thus enhancing the success of virtual team management. The authors observed that this parameter is especially important in cross-cultural teams to effectively and efficiently manage potentially arising misunderstandings based on cross-cultural issues.

The important socio-emotional aspects of a cross cultural, virtual environment are met as individual team members get to know each other during the weeks prior to the team assignment. These early discussion board and email exchanges set the stage for a harmonious, collaborative community in a setting with nearly 100% international learner presence. A sense of harmonious community is also established from the beginning of the course by the continuous presence of the professor. Thus, this particular parameter is closely connected to the parameter of structure.

The authors observed that trust and a good working

climate amongst a team was created when students responded swiftly and regularly via all the established ecommunication channels, such as course emails and discussion boards. Moreover, the authors observed students exchanging outside e-mails, instant messenger addresses and phone numbers which only helped to develop and maintain a trusting relationship that lasts well beyond the duration of the course. The authors also observed that theses virtual teams operated very successfully across various time zones and cultures. Furthermore, the peer assessment tool adopted at U21G has promoted a high sense of trust and the swift establishment of trust creation, as it holds each team member accountable for the individual contribution to the team.

It was noted that the role of peer learning cannot be overestimated. The authors observed many occasions where peer learning led to students openly asking questions related to their own work and soliciting answers and suggestions from classmates (which in itself shows the swiftly established trust in such a class). The collaboration parameter is interconnected with all the other identified parameters, as the course structure sets the foundation for discussion boards and the requirement of postings. These lead to the establishment of a harmonious environment in which students and professor make use of various communication channels, build trust, and thus allow for the effective collaboration and beneficial mutual reliance between virtual team members from all over the world to flourish.

Synchronized efforts in virtual teams can work equally well; Virtual teams can work both in a synchronous as well as asynchronous manner, both across time zones and within the same or similar time zones. Teams are able to take their time to reflect on what was posted, and add their individual value leading the team project to a successful outcome. The researchers also wish to note that this parameter is closely tied to structure, as structure sets forth a due date by which the synchronized effort is to be completed.

Given the cross-cultural nature of these virtual teams, the authors observed that the parameter of shared

responsibility is even more important to ensure that virutal teams work effectively and efficiently within cross cultures and time zones. There is a continuous interaction between the professors and students throughout the course. The professor sets the tone by giving standards and due dates which the teams enhance by setting their own deadlines and standards to successfully complete the team task.

Teams create the awareness that they are collaboratively constructing knowledge in order to achieve a mutually beneficial goal. Understanding and emphasizing these parameters promote the continuous development of a collaborative and communal virtual team culture to emerge swiftly. This not only allows for successful management of such virtual teams, but also allows for successful mutually constructive learning to develop. These features allow cross-cultural virtual teams to work in a smart, creative, and more flexible manner. As a final observation, the existence and interconnected nature of these parameters indicates the relevance and strong influence of living systems theory.

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